

SEQUENCE LISTING

<110> JAPAN SCIENCE AND TECHNOLOGY CORPORATION

<120> Receptor proteins specifically recognizing bacterial DNA

<130> A031-29PCT

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<150> 2000-219652

<151> 2000-07-19

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<170> PatentIn Ver. 2.1

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<212> DNA

<213> Homo sapiens

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<221> CDS

<222> (107).. (3205)

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Met Gly Phe
1

tgc cgc agc gcc ctg cac ccg ctg tct ctc ctg gtg cag gcc atc atg 163
Cys Arg Ser Ala Leu His Pro Leu Ser Leu Leu Val Gln Ala Ile Met
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Leu Ala Met Thr Leu Ala Leu Gly Thr Leu Pro Ala Phe Leu Pro Cys
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Glu Leu Gln Pro His Gly Leu Val Asn Cys Asn Trp Leu Phe Leu Lys
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Ser	Val	Pro	His	Phe	Ser	Met	Ala	Ala	Pro	Arg	Gly	Asn	Val	Thr	Ser	
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ctt	tcc	tgt	tcc	tcc	aac	cgc	atc	cac	cac	ctc	cat	gat	tct	gac	ttt	355
Leu	Ser	Leu	Ser	Ser	Asn	Arg	Ile	His	His	Leu	His	Asp	Ser	Asp	Phe	
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gcc	cac	ctg	ccc	agc	ctg	cgg	cat	ctc	aac	ctc	aag	tgg	aac	tgc	cgc	403
Ala	His	Leu	Pro	Ser	Leu	Arg	His	Leu	Asn	Leu	Lys	Trp	Asn	Cys	Pro	
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Pro	Val	Gly	Leu	Ser	Pro	Met	His	Phe	Pro	Cys	His	Met	Thr	Ile	Glu	
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Tyr	Asn	Asn	Ile	Met	Thr	Val	Pro	Ala	Leu	Pro	Lys	Ser	Leu	Ile	Ser	
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ctg	tcc	ctc	agc	cat	acc	aac	atc	ctg	atg	cta	gac	tct	gcc	agc	ctc	595
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Ala	Gly	Leu	His	Ala	Leu	Arg	Phe	Leu	Phe	Met	Asp	Gly	Asn	Cys	Tyr	
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tac	aag	aac	ccc	tgc	agg	cag	gca	ctg	gag	gtg	gcc	ccg	ggt	gcc	ctc	691
Tyr	Lys	Asn	Pro	Cys	Arg	Gln	Ala	Leu	Glu	Val	Ala	Pro	Gly	Ala	Leu	
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Leu	Gly	Leu	Gly	Asn	Leu	Thr	His	Leu	Ser	Leu	Lys	Tyr	Asn	Asn	Leu	
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act	gtg	gtg	ccc	cgc	aac	ctg	ctt	tcc	agc	ctg	gag	tat	ctg	ctg	tgt	787
Thr	Val	Val	Pro	Arg	Asn	Leu	Pro	Ser	Ser	Leu	Glu	Tyr	Leu	Leu	Leu	
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Thr Ala Leu Arg Val Leu Asp Val Gly Gly Asn Cys Arg Arg Cys Asp			
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cac gct ccc aac ccc tgc atg gag tgc cct cgt cac ttc ccc cag cta			931
His Ala Pro Asn Pro Cys Met Glu Cys Pro Arg His Phe Pro Gln Leu			
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cat ccc gat acc ttc agc cac ctg agc cgt ctt gaa ggc ctg gtg ttg			979
His Pro Asp Thr Phe Ser His Leu Ser Arg Leu Glu Gly Leu Val Leu			
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Lys Asp Ser Ser Leu Ser Trp Leu Asn Ala Ser Trp Phe Arg Gly Leu			
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gga aac ctc cga gtg ctg gac ctg agt gag aac ttc ctc tac aaa tgc			1075
Gly Asn Leu Arg Val Leu Asp Leu Ser Glu Asn Phe Leu Tyr Lys Cys			
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Ile Thr Lys Thr Lys Ala Phe Gln Gly Leu Thr Gln Leu Arg Lys Leu			
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Asn Leu Ser Phe Asn Tyr Gln Lys Arg Val Ser Phe Ala His Leu Ser			
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ctg gcc cct tcc ttc ggg agc ctg gtc gcc ctg aag gag ctg gac atg			1219
Leu Ala Pro Ser Phe Gly Ser Leu Val Ala Leu Lys Glu Leu Asp Met			
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cac ggc atc ttc ttc cgc tca ctc gat gag acc acg ctc cgg cca ctg			1267
His Gly Ile Phe Phe Arg Ser Leu Asp Glu Thr Thr Leu Arg Pro Leu			
375	380	385	
gcc cgc ctg ccc atg ctc cag act ctg cgt ctg cag atg aac ttc atc			1315
Ala Arg Leu Pro Met Leu Gln Thr Leu Arg Leu Gln Met Asn Phe Ile			
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Asn Gln Ala Gln Leu Gly Ile Phe Arg Ala Phe Pro Gly Leu Arg Tyr			
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Asp	Leu	Ala	Pro	Ala	Pro	Val	Asp	Thr	Pro	Ser	Ser	Glu	Asp	Phe	Arg	
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Leu	Val	Thr	Val	Gln	Pro	Glu	Met	Phe	Ala	Gln	Leu	Ser	His	Leu	Gln	
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Cys	Leu	Arg	Leu	Ser	His	Asn	Cys	Ile	Ser	Gln	Ala	Val	Asn	Gly	Ser	
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Gln	Phe	Leu	Pro	Leu	Thr	Gly	Leu	Gln	Val	Leu	Asp	Leu	Ser	His	Asn	
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Lys	Leu	Asp	Leu	Tyr	His	Glu	His	Ser	Phe	Thr	Glu	Leu	Pro	Arg	Leu	
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Glu	Ala	Leu	Asp	Leu	Ser	Tyr	Asn	Ser	Gln	Pro	Phe	Gly	Met	Gln	Gly	
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Val	Gly	His	Asn	Phe	Ser	Phe	Val	Ala	His	Leu	Arg	Thr	Leu	Arg	His	
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agc ggt tlg atc tgg ctg gac tlg tcc cag aac cgc ctg cac acc ctc			2035
Ser Gly Leu Ile Trp Leu Asp Leu Ser Gln Asn Arg Leu His Thr Leu			
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ctg ccc caa acc ctg cgc aac ctc ccc aag agc cta cag gtg ctg cgt			2083
Leu Pro Gln Thr Leu Arg Asn Leu Pro Lys Ser Leu Gln Val Leu Arg			
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ctc cgt gac aat tac ctg gcc ttc ttt aag tgg tgg agc ctc cac ttc			2131
Leu Arg Asp Asn Tyr Leu Ala Phe Phe Lys Trp Trp Ser Leu His Phe			
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Leu Pro Lys Leu Glu Val Leu Asp Leu Ala Gly Asn Gln Leu Lys Ala			
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Leu Thr Asn Gly Ser Leu Pro Ala Gly Thr Arg Leu Arg Arg Leu Asp			
695	700	705	
gtc agc tgc aac agc atc agc ttc gtg gcc ccc ggc ttc tti tcc aag			2275
Val Ser Cys Asn Ser Ile Ser Phe Val Ala Pro Gly Phe Phe Ser Lys			
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gcc aag gag ctg cga gag ctc aac ctt agc gcc aac gcc ctc aag aca			2323
Ala Lys Glu Leu Arg Glu Leu Asn Leu Ser Ala Asn Ala Leu Lys Thr			
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Val Asp His Ser Trp Phe Gly Pro Leu Ala Ser Ala Leu Gln Ile Leu			
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gat gla agc gcc aac cct ctg cac tgc gcc tgt ggg gcg gcc ttt atg			2419
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Asp Phe Leu Leu Glu Val Gln Ala Ala Val Pro Gly Leu Pro Ser Arg			
775	780	785	

gtg aag tgt ggc agt ccg ggc cag ctc cag ggc ctc agc atc ttt gca	2515
Val Lys Cys Gly Ser Pro Gly Gln Leu Gln Gly Leu Ser Ile Phe Ala	
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Gln Asp Leu Arg Leu Cys Leu Asp Glu Ala Leu Ser Trp Asp Cys Phe	
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His His Leu Cys Gly Trp Asp Leu Trp Tyr Cys Phe His Leu Cys Leu	
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Ala Trp Leu Pro Trp Arg Gly Arg Gln Ser Gly Arg Asp Glu Asp Ala	
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Leu Pro Tyr Asp Ala Phe Val Val Phe Asp Lys Thr Gln Ser Ala Val	
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Gly Arg Trp Ala Leu Arg Leu Cys Leu Glu Glu Arg Asp Trp Leu Pro	
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920 925 930	
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Lys Thr Leu Phe Val Leu Ala His Thr Asp Arg Val Ser Gly Leu Leu	
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Arg Ala Ser Phe Leu Leu Ala Gln Gln Arg Leu Leu Glu Asp Arg Lys	
950 955 960	
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Phe	Leu	Lys	Ser	Val	Pro	His	Phe	Ser	Met	Ala	Ala	Pro	Arg	Gly	Asn
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Val	Thr	Ser	Leu	Ser	Leu	Ser	Ser	Asn	Arg	Ile	His	His	Leu	His	Asp
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Ser	Asp	Phe	Ala	His	Leu	Pro	Ser	Leu	Arg	His	Leu	Asn	Leu	Lys	Trp
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Asn	Cys	Pro	Pro	Val	Gly	Leu	Ser	Pro	Met	His	Phe	Pro	Cys	His	Met
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 Arg Cys Asp His Ala Pro Asn Pro Cys Met Glu Cys Pro Arg His Phe
 260 265 270
 Pro Gln Leu His Pro Asp Thr Phe Ser His Leu Ser Arg Leu Glu Gly
 275 280 285
 Leu Val Leu Lys Asp Ser Ser Leu Ser Trp Leu Asn Ala Ser Trp Phe
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 Arg Gly Leu Gly Asn Leu Arg Val Leu Asp Leu Ser Glu Asn Phe Leu
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 Tyr Lys Cys Ile Thr Lys Thr Lys Ala Phe Gln Gly Leu Thr Gln Leu
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 Asp Phe Arg Pro Asn Cys Ser Thr Leu Asn Phe Thr Leu Asp Leu Ser
 465 470 475 480
 Arg Asn Asn Leu Val Thr Val Gln Pro Glu Met Phe Ala Gln Leu Ser
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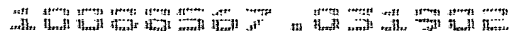
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625					630					635					640
His	Thr	Leu	Leu	Pro	Gln	Thr	Leu	Arg	Asn	Leu	Pro	Lys	Ser	Leu	Gln
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Val	Leu	Arg	Leu	Arg	Asp	Asn	Tyr	Leu	Ala	Phe	Phe	Lys	Trp	Trp	Ser
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Leu	Lys	Ala	Leu	Thr	Asn	Gly	Ser	Leu	Pro	Ala	Gly	Thr	Arg	Leu	Arg
	690					695					700				
Arg	Leu	Asp	Val	Ser	Cys	Asn	Ser	Ile	Ser	Phe	Val	Ala	Pro	Gly	Phe
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Phe	Ser	Lys	Ala	Lys	Glu	Leu	Arg	Glu	Leu	Asn	Leu	Ser	Ala	Asn	Ala
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Leu	Lys	Thr	Val	Asp	His	Ser	Trp	Phe	Gly	Pro	Leu	Ala	Ser	Ala	Leu
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Gln	Ile	Leu	Asp	Val	Ser	Ala	Asn	Pro	Leu	His	Cys	Ala	Cys	Gly	Ala
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Pro	Ser	Arg	Val	Lys	Cys	Gly	Ser	Pro	Gly	Gln	Leu	Gln	Gly	Leu	Ser
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Ile	Phe	Ala	Gln	Asp	Leu	Arg	Leu	Cys	Leu	Asp	Glu	Ala	Leu	Ser	Trp
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Asp	Cys	Phe	Ala	Leu	Ser	Leu	Leu	Ala	Val	Ala	Leu	Gly	Leu	Gly	Val
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Leu	Cys	Leu	Ala	Trp	Leu	Pro	Trp	Arg	Gly	Arg	Gln	Ser	Gly	Arg	Asp
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Glu	Asp	Ala	Leu	Pro	Tyr	Asp	Ala	Phe	Val	Val	Phe	Asp			

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Glu	Cys	Arg	Gly	Arg	Trp	Ala	Leu	Arg	Leu	Cys	Leu	Glu	Glu	Arg	Asp
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Gly	Ser	Arg	Lys	Thr	Leu	Phe	Val	Leu	Ala	His	Thr	Asp	Arg	Val	Ser
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Gly	Leu	Leu	Arg	Ala	Ser	Phe	Leu	Leu	Ala	Gln	Gln	Arg	Leu	Leu	Glu
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Asp	Arg	Lys	Asp	Val	Val	Val	Leu	Val	Ile	Leu	Ser	Pro	Asp	Gly	Arg
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Leu	Leu	Trp	Pro	His	Gln	Pro	Ser	Gly	Gln	Arg	Ser	Phe	Trp	Ala	Gln
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 Met Val Leu
 I
 cgt cga agg act ctg cac ccc ttg tcc ctg ctg gta cag gct gca gtg 163
 Arg Arg Arg Thr Leu His Pro Leu Ser Leu Leu Val Gln Ala Ala Val
 5 10 15
 ctg gct gag act ctg gcc ctg ggt acc ctg cct gcc ttc cta ccc tgt 211
 Leu Ala Glu Thr Leu Ala Leu Gly Thr Leu Pro Ala Phe Leu Pro Cys
 20 25 30 35



11/19



215	220	225	
tcc tat aac ctc att gtc aag ctg ggg cct gaa gac ctg gcc aat ctg			835
Ser Tyr Asn Leu Ile Val Lys Leu Gly Pro Glu Asp Leu Ala Asn Leu			
230	235	240	
acc tcc ctt cga gta ctt gat gtg ggt ggg aat tgc cgt cgc tgc gac			883
Thr Ser Leu Arg Val Leu Asp Val Gly Gly Asn Cys Arg Arg Cys Asp			
245	250	255	
cat gcc ccc aat ccc tgt ata gaa tgt ggc caa aag tcc ctc cac ctg			931
His Ala Pro Asn Pro Cys Ile Glu Cys Gly Gln Lys Ser Leu His Leu			
260	265	270	275
cac cct gag acc ttc cat cac ctg agc cat ctg gaa ggc ctg gtc ctg			979
His Pro Glu Thr Phe His His Leu Ser His Leu Glu Gly Leu Val Leu			
280	285	290	
aag gac agc tct ctc cat aca ctg aac tct tcc tgg ttc caa ggt ctg			1027
Lys Asp Ser Ser Leu His Thr Leu Asn Ser Ser Trp Phe Gln Gly Leu			
295	300	305	
gtc aac ctc tgc gig ctg gac cta agc gag aac ttt ctc tat gaa agc			1075
Val Asn Leu Ser Val Leu Asp Leu Ser Glu Asn Phe Leu Tyr Glu Ser			
310	315	320	
atc aac cac acc aat gcc ttt cag aac cta acc cgc ctg cgc aag ctc			1123
Ile Asn His Thr Asn Ala Phe Gln Asn Leu Thr Arg Leu Arg Lys Leu			
325	330	335	
aac ctg tcc ttc aat tac cgc aag aag gta tcc ttt gcc cgc ctc cac			1171
Asn Leu Ser Phe Asn Tyr Arg Lys Lys Val Ser Phe Ala Arg Leu His			
340	345	350	355
ctg gca agt tcc ttc aag aac ctg gtg tca ctg cag gag ctg aac atg			1219
Leu Ala Ser Ser Phe Lys Asn Leu Val Ser Leu Gln Glu Leu Asn Met			
360	365	370	
aac ggc atc ttc ttc cgc tgc ctc aac aag tac acg ctc aga tgg ctg			1267
Asn Gly Ile Phe Phe Arg Ser Leu Asn Lys Tyr Thr Leu Arg Trp Leu			
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gcc gat ctg ccc aaa ctc cac act ctg cat ctt caa atg aac ttc atc			1315
Ala Asp Leu Pro Lys Leu His Thr Leu His Leu Gln Met Asn Phe Ile			
390	395	400	


$$13 \mid 19$$

580	585	590	595	
ctc aac agc aac tca gtg agg ttt ctt gac ttc agc ggc aac ggt atg				1939
Leu Asn Ser Asn Ser Val Arg Phe Leu Asp Phe Ser Gly Asn Gly Met				
	600	605	610	
ggc cgc atg tgg gat gag ggg ggc ctt tat ctc cat ttc ttc caa ggc				1987
Gly Arg Met Trp Asp Glu Gly Gly Leu Tyr Leu His Phe Phe Gln Gly				
	615	620	625	
ctg agt ggc ctg ctg aag ctg gac ctg tct caa aat aac ctg cat atc				2035
Leu Ser Gly Leu Leu Lys Leu Asp Leu Ser Gln Asn Asn Leu His Ile				
	630	635	640	
ctc cgg ccc cag aac ctt gac aac ctc ccc aag agc ctg aag ctg ctg				2083
Leu Arg Pro Gln Asn Leu Asp Asn Leu Pro Lys Ser Leu Lys Leu Leu				
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agc ctc cga gac aac tac cta tct ttc ttt aac tgg acc agt ctg tcc				2131
Ser Leu Arg Asp Asn Tyr Leu Ser Phe Phe Asn Trp Thr Ser Leu Ser				
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ttc ctg ccc aac ctg gaa gtc cta gac ctg gca ggc aac cag cta aag				2179
Phe Leu Pro Asn Leu Glu Val Leu Asp Leu Ala Gly Asn Gln Leu Lys				
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gcc ctg acc aat ggc acc ctg cct aat ggc acc ctc ctc cag aaa ctg				2227
Ala Leu Thr Asn Gly Thr Leu Pro Asn Gly Thr Leu Leu Gln Lys Leu				
	695	700	705	
gat gtc agc agc aac agt atc gtc tct glg gtc cca gcc ttc ttc gct				2275
Asp Val Ser Ser Asn Ser Ile Val Ser Val Val Pro Ala Phe Phe Ala				
	710	715	720	
ctg gcg gtc gag ctg aaa gag gtc aac ctc agc cac aac att ctc aag				2323
Leu Ala Val Glu Leu Lys Glu Val Asn Leu Ser His Asn Ile Leu Lys				
	725	730	735	
acg gtg gat cgc tcc tgg ttt ggg ccc att gtg atg aac ctg aca gtt				2371
Thr Val Asp Arg Ser Trp Phe Gly Pro Ile Val Met Asn Leu Thr Val				
	740	745	750	755
cta gac gtg aga agc aac cct ctg cac tgt gcc tgt ggg gca gcc ttc				2419
Leu Asp Val Arg Ser Asn Pro Leu His Cys Ala Cys Gly Ala Ala Phe				
	760	765	770	

gla	gac	tta	ctg	tig	gag	gtg	cag	acc	aag	gtg	ccg	ggc	ctg	gct	aat	2467
Val	Asp	Leu	Leu	Leu	Glu	Val	Gln	Thr	Lys	Val	Pro	Gly	Leu	Ala	Asn	
		775						780					785			
ggt	gtg	aag	tgt	ggc	agc	ccc	ggc	cag	ctg	cag	ggc	cgt	agc	atc	ttc	2515
Gly	Val	Lys	Cys	Gly	Ser	Pro	Gly	Gln	Leu	Gln	Gly	Arg	Ser	Ile	Phe	
		790					795					800				
gca	cag	gac	ctg	cgg	ctg	igc	ctg	gat	gag	gtc	ctc	ict	tgg	gac	tgc	2563
Ala	Gln	Asp	Leu	Arg	Leu	Cys	Leu	Asp	Glu	Val	Leu	Ser	Trp	Asp	Cys	
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ttt	ggc	ctt	tca	ctc	tig	gct	gtg	gcc	gtg	ggc	atg	gtg	gtg	ccg	ata	2611
Phe	Gly	Leu	Ser	Leu	Leu	Ala	Val	Ala	Val	Gly	Met	Val	Val	Pro	Ile	
820					825					830					835	
ctg	cac	cat	ctc	tgc	ggc	tgg	gac	gtc	tgg	tac	tgt	ttt	cat	ctg	tgc	2659
Leu	His	His	Leu	Cys	Gly	Trp	Asp	Val	Trp	Tyr	Cys	Phe	His	Leu	Cys	
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ctg	gca	tgg	cta	ccg	tig	ctg	gcc	cgc	agc	cga	cgc	agc	gcc	caa	gct	2707
Leu	Ala	Trp	Leu	Pro	Leu	Leu	Ala	Arg	Ser	Arg	Arg	Ser	Ala	Gln	Ala	
			855					860					865			
ctc	ccc	tat	gat	gcc	ttc	gtg	gtg	ttc	gat	aag	gca	cag	agc	gca	gtt	2755
Leu	Pro	Tyr	Asp	Ala	Phe	Val	Val	Phe	Asp	Lys	Ala	Gln	Ser	Ala	Val	
		870					875					880				
gcg	gac	tgg	gtg	tat	aac	gag	ctg	cgg	gtg	cgg	ctg	gag	gag	cgg	cgc	2803
Ala	Asp	Trp	Val	Tyr	Asn	Glu	Leu	Arg	Val	Arg	Leu	Glu	Glu	Arg	Arg	
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Gly	Arg	Arg	Ala	Leu	Arg	Leu	Cys	Leu	Glu	Asp	Arg	Asp	Trp	Leu	Pro	
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ggc	cag	acg	ctc	ttc	gag	aac	ctc	tgg	gct	tcc	atc	tat	ggg	agc	cgc	2899
Gly	Gln	Thr	Leu	Phe	Glu	Asn	Leu	Trp	Ala	Ser	Ile	Tyr	Gly	Ser	Arg	
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aag	act	cta	ttt	gtg	ctg	gcc	cac	acg	gac	cgc	gtc	agt	ggc	ctc	ctg	2947
Lys	Thr	Leu	Phe	Val	Leu	Ala	His	Thr	Asp	Arg	Val	Ser	Gly	Leu	Leu	
			935					940					945			
cgc	acc	agc	ttc	ctg	ctg	gct	cag	cag	cgc	ctg	tig	gaa	gac	cgc	aag	2995
Arg	Thr	Ser	Phe	Leu	Leu	Ala	Gln	Gln	Arg	Leu	Leu	Glu	Asp	Arg	Lys	

950 955 960

gac gtg gtg gtg ttg gtg atc ctg cgt ccg gat gcc cac cgc tcc cgc 3043
 Asp Val Val Val Leu Val Ile Leu Arg Pro Asp Ala His Arg Ser Arg
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 Tyr Val Arg Leu Arg Gln Arg Leu Cys Arg Gln Ser Val Leu Phe Trp
 980 985 990 995

ccc cag cag ccc aac ggg cag ggg ggc ttc tgg gcc cag ctg agt aca 3139
 Pro Gln Gln Pro Asn Gly Gln Gly Gly Phe Trp Ala Gln Leu Ser Thr
 1000 1005 1010

gcc ctg act agg gac aac cgc cac ttc tat aac cag aac ttc tgc cgg 3187
 Ala Leu Thr Arg Asp Asn Arg His Phe Tyr Asn Gln Asn Phe Cys Arg
 1015 1020 1025

gga cct aca gca gaa tag ctgagagcaa cagctggaaa cagctgcatc 3235
 Gly Pro Thr Ala Glu
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gaacaggact ggagttcatt ctctgcccct ccaccccact ttgcctgtct ctgtat 3471

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 35 40 45
 Phe Leu Lys Ser Val Pro Arg Phe Ser Ala Ala Ala Ser Cys Ser Asn
 50 55 60
 Ile Thr Arg Leu Ser Leu Ile Ser Asn Arg Ile His His Leu His Asn

65 70 75 80
 Ser Asp Phe Val His Leu Ser Asn Leu Arg Gln Leu Asn Leu Lys Trp
 85 90 95
 Asn Cys Pro Pro Thr Gly Leu Ser Pro Leu His Phe Ser Cys His Met
 100 105 110
 Thr Ile Glu Pro Arg Thr Phe Leu Ala Met Arg Thr Leu Glu Glu Leu
 115 120 125
 Asn Leu Ser Tyr Asn Gly Ile Thr Thr Val Pro Arg Leu Pro Ser Ser
 130 135 140
 Leu Val Asn Leu Ser Leu Ser His Thr Asn Ile Leu Val Leu Asp Ala
 145 150 155 160
 Asn Ser Leu Ala Gly Leu Tyr Ser Leu Arg Val Leu Phe Met Asp Gly
 165 170 175
 Asn Cys Tyr Tyr Lys Asn Pro Cys Thr Gly Ala Val Lys Val Thr Pro
 180 185 190
 Gly Ala Leu Leu Gly Leu Ser Asn Leu Thr His Leu Ser Val Lys Tyr
 195 200 205
 Asn Asn Leu Thr Lys Val Pro Arg Gln Leu Pro Pro Ser Leu Glu Tyr
 210 215 220
 Leu Leu Val Ser Tyr Asn Leu Ile Val Lys Leu Gly Pro Glu Asp Leu
 225 230 235 240
 Ala Asn Leu Thr Ser Leu Arg Val Leu Asp Val Gly Gly Asn Cys Arg
 245 250 255
 Arg Cys Asp His Ala Pro Asn Pro Cys Ile Glu Cys Gly Gln Lys Ser
 260 265 270
 Leu His Leu His Pro Glu Thr Phe His His Leu Ser His Leu Glu Gly
 275 280 285
 Leu Val Leu Lys Asp Ser Ser Leu His Thr Leu Asn Ser Ser Trp Phe
 290 295 300
 Gln Gly Leu Val Asn Leu Ser Val Leu Asp Leu Ser Glu Asn Phe Leu
 305 310 315 320
 Tyr Glu Ser Ile Asn His Thr Asn Ala Phe Gln Asn Leu Thr Arg Leu
 325 330 335
 Arg Lys Leu Asn Leu Ser Phe Asn Tyr Arg Lys Lys Val Ser Phe Ala
 340 345 350
 Arg Leu His Leu Ala Ser Ser Phe Lys Asn Leu Val Ser Leu Gln Glu
 355 360 365
 Leu Asn Met Asn Gly Ile Phe Phe Arg Ser Leu Asn Lys Tyr Thr Leu
 370 375 380
 Arg Trp Leu Ala Asp Leu Pro Lys Leu His Thr Leu His Leu Gln Met
 385 390 395 400
 Asn Phe Ile Asn Gln Ala Gln Leu Ser Ile Phe Gly Thr Phe Arg Ala
 405 410 415
 Leu Arg Phe Val Asp Leu Ser Asp Asn Arg Ile Ser Gly Pro Ser Thr
 420 425 430
 Leu Ser Glu Ala Thr Pro Glu Glu Ala Asp Asp Ala Glu Gln Glu Glu

435	440	445
Leu Leu Ser Ala Asp Pro His	Pro Ala Pro Leu Ser Thr Pro Ala Ser	
450	455	460
Lys Asn Phe Met Asp Arg Cys	Lys Asn Phe Lys Phe Thr Met Asp Leu	
465	470	475
Ser Arg Asn Asn Leu Val Thr Ile	Lys Pro Glu Met Phe Val Asn Leu	
485	490	495
Ser Arg Leu Gln Cys Leu Ser Leu	Ser His Asn Ser Ile Ala Gln Ala	
500	505	510
Val Asn Gly Ser Gln Phe Leu Pro	Leu Thr Asn Leu Gln Val Leu Asp	
515	520	525
Leu Ser His Asn Lys Leu Asp Leu	Tyr His Trp Lys Ser Phe Ser Glu	
530	535	540
Leu Pro Gln Leu Gln Ala Leu Asp	Leu Ser Tyr Asn Ser Gln Pro Phe	
545	550	555
Ser Met Lys Gly Ile Gly His Asn	Phe Ser Phe Val Ala His Leu Ser	
565	570	575
Met Leu His Ser Leu Ser Leu Ala	His Asn Asp Ile His Thr Arg Val	
580	585	590
Ser Ser His Leu Asn Ser Asn Ser	Val Arg Phe Leu Asp Phe Ser Gly	
595	600	605
Asn Gly Met Gly Arg Met Trp Asp	Glu Gly Gly Leu Tyr Leu His Phe	
610	615	620
Phe Gln Gly Leu Ser Gly Leu Leu	Lys Leu Asp Leu Ser Gln Asn Asn	
625	630	635
Leu His Ile Leu Arg Pro Gln Asn	Leu Asp Asn Leu Pro Lys Ser Leu	
645	650	655
Lys Leu Leu Ser Leu Arg Asp Asn	Tyr Leu Ser Phe Phe Asn Trp Thr	
660	665	670
Ser Leu Ser Phe Leu Pro Asn Leu	Glu Val Leu Asp Leu Ala Gly Asn	
675	680	685
Gln Leu Lys Ala Leu Thr Asn Gly	Thr Leu Pro Asn Gly Thr Leu Leu	
690	695	700
Gln Lys Leu Asp Val Ser Ser Asn	Ser Ile Val Ser Val Val Pro Ala	
705	710	715
Phe Phe Ala Leu Ala Val Glu Leu	Lys Glu Val Asn Leu Ser His Asn	
725	730	735
Ile Leu Lys Thr Val Asp Arg Ser	Trp Phe Gly Pro Ile Val Met Asn	
740	745	750
Leu Thr Val Leu Asp Val Arg Ser	Asn Pro Leu His Cys Ala Cys Gly	
755	760	765
Ala Ala Phe Val Asp Leu Leu Leu	Glu Val Gln Thr Lys Val Pro Gly	
770	775	780
Leu Ala Asn Gly Val Lys Cys Gly	Ser Pro Gly Gln Leu Gln Gly Arg	
785	790	795
Ser Ile Phe Ala Gln Asp Leu Arg	Leu Cys Leu Asp Glu Val Leu Ser	

